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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,434	02/28/2002	William L. Tonar	GEN-001323C3	4510
30981	7590	12/19/2007	EXAMINER	
King & Partners, PLC 170 College Avenue SUITE 230 HOLLAND, MI 49423			TOSCANO, ALICIA	
			ART UNIT	PAPER NUMBER
			1796	
			MAIL DATE	DELIVERY MODE
			12/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/085,434	Applicant(s) TONAR ET AL.	
	Examiner Alicia M. Toscano	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Currently, Applicant has a priority date of 6/18/01.
2. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant only claims benefit back to application 09/883650, with an effective filing date of 6/18/01. Applicant has not complied with one or more conditions for receiving the benefit of related cases which have earlier filing dates under 35 U.S.C. 119 because though the case links back to the originally filed application 08/278913 (effective filing date 7/22/94), Applicant has not claimed priority to 08/278913 or the intervening applications 09/361923, 08/616967.
3. The oath/declaration is objected to because it only includes a priority claim to 08/278913 and does not include a priority claim to the instantly claimed priority of 09/883650, nor any intervening applications.
4. The specification is objected to because no amendment has been made to show priority.

Claim Objections

5. Claims 3-69 are objected to because of the following informalities: The independent claims therein disclose sandwiching an electrochromic medium between 2 conductively coated substrates, each substrate with a front and rear surface and each coated on the rear or front surface respectively, making it unclear as to how the coated

surfaces are situated around the electrochromic medium. Examiner suggests the use of "inner" and "outer" instead of "front" and "rear". Appropriate correction is required.

6. Claim 51 is objected to because of the following informalities: it is unclear to the Examiner what "wherein the same is a solid state device" refers to.

Terminal Disclaimer

7. The terminal disclaimer filed on 11/05/07 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US 6248263 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 3-69 are rejected under 35 U.S.C. 102(b) as being anticipated by Tonar (US 5679283).

Tonar discloses electrochromic layers and devices comprising them. Said devices comprise at least one transparent substrate coated with a layer of an electronically conducting coating, forming electrodes (Column 1 lines 47-55), and an electrochromic medium in between (abstract). The electrochromic medium is a

crosslinked matrix (Column 6 line 42), wherein the polymers which are crosslinked may have a molecular weight of 2000 (Column 6 line 56) to 4800 (Column 12 line 54).

Examiner finds 4800 to meet the "approximately 5000" requirement of the intervening claims. The crosslinking polymer is described as a free standing gel (Column 5 line 2) and does not significantly weep (Column 5 line 10), further meeting requirements of said component in claims 11-69. The elements discussed meet the limitations of claims 3-50. Since the elements of the device are met, the Examiner finds the "solid state" requirements of Claim 51 to be met. Regarding claims 52-69, use of about 50 wt% (Column 7 line 14), 19 wt% and 33 wt% (Table II) of the crosslinked matrix in the electrochromic medium is disclosed and thusly meets the limitations of the claims.

9. Claims 3-53, 54-56, 58-59, 61-62, 64-65 and 67-69 are rejected under 35 U.S.C. 102(b) as being anticipated by Varaprasad (EP 612826 A1).

Varaprasad discloses electrochromic polymeric films. Said films start as a monomer and are polymerized into polymers by exposure to electromagnetic radiation (abstract), resulting in a crosslinked matrix.

Pertaining to the independent claims the process of making the crosslinked matrix by crosslinking preformed non crosslinked polymer chains is viewed as product-by-process claims and hence the methods they are created by are not pertinent, unless applicant can show a different product is produced.

The MW requirements fall under the product by process claims, however even as such, the Examiner notes that the claimed MW ranges are met by use of PEG 200-8000

on pg 18 lines 14-16. Further, polymeric films may be prepared separately from the electrochromic device (Pg 20 lines 25-35), forming a free standing gel. The electrochromic polymeric medium is set between two conductive surfaces (pg 4 lines 19-20) wherein a coating of ITO may be deposited onto a substantially clear surface (pg 23 lines 56-58). It is the Examiner's position that the monomers of the crosslinking solution inherently act as a solvent for the various plasticizers and electrochromic elements of the composition, since the solution is homogeneous prior to crosslinking. Further, since the compositional elements are met, the Examiner finds the crosslinked matrix to inherently have free standing and non weeping characteristics.

Regarding claims 53, 54-56, 58-59, 61-62, 64-65 and 67-69, use of 21% monomer in the composition, which would result in 21% crosslinked matrix in the end product, is disclosed in Example 4 preparation A, meeting the less than 50 and 33 wt% requirements.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 54, 57, 60, 63, 66 and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Varaprasad.

Varaprasad includes elements as set forth above. Varaprasad discloses the use of 21 wt% monomer in the crosslinking solution. Once crosslinked the composition would thusly have 21 wt% crosslinked matrix. Varaprasad does not disclose the use of less than 19 wt% of crosslinked matrix, as required by the above claims.

It has been held that a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties, see *Titanium Metals Corporation of America v. Banner*, 227 USPQ 773 (Fed. Cir. 1985). It is the Examiner's position that there would be no difference between 19 wt% and 21 wt% crosslinked matrix, and thusly the range is found to be met by Varaprasad.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Toscano whose telephone number is 571-272-2451. The examiner can normally be reached on Monday to Friday 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone

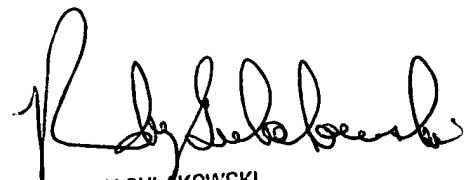
Application/Control Number:
10/085,434
Art Unit: 1796

Page 7

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AMT



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